NPDES PERMIT NO. NM0020532

STATEMENT OF BASIS

FOR THE DRAFT NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT TO DISCHARGE TO WATERS OF THE UNITED STATES

APPLICANT:	Rio Algom Mining LLC Ambrosia Lake Facility P.O. Box 218 Grants, NM 87020
ISSUING OFFICE:	U.S. Environmental Protection Agency Region 6 1445 Ross Avenue Dallas, Texas 75202-2733
PREPARED BY:	J. Scott Wilson Environmental Scientist NPDES Permits Branch (6WQ-P) Water Quality Protection Division Telephone: 214-665-7511 FAX: 214-665-2191 E-mail: wilson.js@epa.gov
PERMIT ACTION:	Proposed reissuance of the current permit issued January 28, 2000 with an effective date of March 1, 2000 and an expiration date of February 29, 2005.
DATE PREPARED:	August 7, 2005

40 CFR CITATIONS: Unless otherwise stated, citations to 40CFR refer to promulgated regulations listed at Title 40, Code of Federal Regulations, revised as of 7/1/04.

CERTIFICATION: The permit is in the process of certification by the New Mexico Environment Department in accordance with regulations found at 40 CFR124.53. Notice of the draft permit's availability will be sent to the District Engineer, Corps of Engineers; to the Regional Director of the U.S. Fish and Wildlife Service; and to the National Marine Fisheries Service.

FINAL DETERMINATION: The public notice describes the procedures for the formulation of final determinations.

I. PROPOSED CHANGES FROM PREVIOUS PERMIT

It is proposed that the current permit be reissued for a 5-year term.

The changes from the current permit issued are:

(A) The limitations for Selenium and Vanadium were revised in accordance with New Mexico Water Quality Standards

II. APPLICANT ACTIVITY

Under the Standard Industrial Classification (SIC) Code(s) 1094, the applicant operates a Uranium mine which is in the process of reclamation.

III. DISCHARGE LOCATION

As described in the application, the plant site is located in McKinley County, New Mexico. The discharge(s) are to receiving water(s) named an unnamed ditch, thence to Arroyo del Puerto, thence to San Mateo Creek, thence to Rio San Jose, thence to Rio Puerco in Waterbody Segment Code No. 20.4.6.105 of the Rio Grande Basin.

IV. RECEIVING WATER USES

The designated uses of the receiving water(s) are:

Irrigation
Livestock Watering
Wildlife Habitat
Marginal Warm Water Aquatic Life
Secondary Contact

V. STREAM STANDARDS

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Waters," (20.6.4 NMAC , effective October 11, 2002).

VI. DISCHARGE DESCRIPTION

A quantitative description of the discharge(s) described in the EPA Permit Application Forms 1 and 2C dated August 19, 2004 is presented in Appendix A of this Fact Sheet

VII. TENTATIVE DETERMINATION

On the basis of preliminary staff review and after consultation with the State of New Mexico, the Environmental Protection Agency has made a tentative determination to reissue a permit for the discharge described in the application.

VIII. PROPOSED PERMIT CONDITIONS

The specific effluent limitations and/or conditions are described below and will be found in the draft permit.

IX DRAFT PERMIT RATIONALE

The following section sets forth the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing the draft permit. Also set forth are any calculations or other necessary explanations of the derivation of specific effluent limitations and conditions, including a citation to the applicable effluent limitation guideline or performance standard provisions as required under 40CFR122.44 and reasons why they are applicable or an explanation of how the alternate effluent limitations were developed.

A. REASON FOR PERMIT REISSUANCE

The current permit expired on February 29, 2005 and is presently administratively extended. The permit renewal application was dated August 19, 2004 and was received by EPA Region 6 on August 23, 2004. It is proposed that the current permit be reissued for a 5-year term following regulations promulgated at 40 CFR 122.46(a). That term will correspond with the EPA Basin Statewide Management Approach to Permitting in New Mexico, adopted March 2, 2000. This program also known as the Statewide Basin Management Approach to permitting is a comprehensive framework to better coordinate and integrate water resource management activities geographically by river basin.

B. TECHNOLOGY-BASED VERSUS WATER QUALITY STANDARDS-BASED EFFLUENT LIMITATIONS AND CONDITIONS

Following regulations promulgated at 40CFR122.44(l)(2)(ii), the draft permit limits are based on either technology-based effluent limits pursuant to 40CFR122.44(a) or on State water quality standards and requirements pursuant to 40CFR122.44(d), whichever are more stringent.

The technology based limitations for Total Suspended Solids, Chemical Oxygen Demand, Radium, Uranium, and Zinc are more stringent than required by State Water Quality Standard and are proposed to be retained in the reissued permit. The limits for Gross Alpha, Cadmium, Selenium, and Vanadium are based on more stringent State Water Quality Standards.

C. TECHNOLOGY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Regulations promulgated at 40 CFR 122.44(a) require technology-based effluent limitations to be placed in NPDES permits based on effluent limitations guidelines where applicable, on BPJ (best professional judgment) in the absence of guidelines, or on a combination of the two.

2. EFFLUENT LIMITATIONS

The draft permit establishes technology-based effluent limitations for Total Suspended Solids, Chemical Oxygen Demand, Radium, Uranium, and Zinc based on the Uranium, Radium, and Vanadium Subcategory of the Ore Mining and Dressing Point Source Category Effluent found at 40 CFR Part 440, Subpart C. Those limitations are included in the expired permit and are not proposed to be changed.

The permittee treats contaminated ground water and mine reclamation water with ion exchange, followed by treatment with Barium Chloride. The previous permit required monitoring for Chemical Oxygen Demand, Radium, Uranium, and Zinc at an internal outfall located at the discharge from the treatment system. Those monitoring requirements are proposed to be retained in the reissued permit.

3. MONITORING FREQUENCIES FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40CFR122.48(b)] and to assure compliance with permit limitations [40CFR122.44(i)(1)].

The draft permit establishes a monitoring frequency based on current permit requirements. Both the internal and final outfalls discharge on an intermittent basis. Monitoring is only required to be accomplished at times when there is a discharge. Monitoring for all parameters except flow at the final outfall is presently required to be once per week. Monitoring for flow is required to be done continuously when discharging. Monitoring at the internal outfall is require to be accomplished once per month.

D. WATER QUALITY-BASED EFFLUENT LIMITATIONS/CONDITIONS

1. GENERAL COMMENTS

Effluent limitations and/or conditions established in the draft permit are in compliance with State water quality standards and the applicable water quality management plan.

2. POST THIRD ROUND POLICY AND STRATEGY

Section 101 of the Clean Water Act (CWA) states that "...it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited..." To insure that the CWA's prohibitions on toxic discharges are met, EPA has issued a "Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants (49 FR 9016-9019, 3/9/84)." In support of the national policy, Region

6 adopted the "Policy for Post Third Round NPDES Permitting" and the "Post Third Round NPDES Permit Implementation Strategy" on October 1, 1992. The Regional policy and strategy are designed to insure that no source will be allowed to discharge any wastewater which (1) results in instream aquatic toxicity; (2) causes a violation of an applicable narrative or numerical State water quality standard resulting in nonconformance with the provisions of 40CFR122.44(d); (3) results in the endangerment of a drinking water supply; or (4) results in aquatic bioaccumulation which threatens human health.

3. IMPLEMENTATION

The Region is currently implementing its post third round policy in conformance with the Regional strategy. The NPDES permit contains technology-based effluent limitations reflecting the best controls available. Where these technology-based permit limits do not protect water quality or the designated uses, additional water quality-based effluent limitations and/or conditions are included in the NPDES permits. State narrative and numerical water quality standards are used in conjunction with EPA criteria and other available toxicity information to determine the adequacy of technology-based permit limits and the need for additional water quality-based controls.

4. STATE WATER QUALITY NUMERICAL STANDARDS

a. GENERAL COMMENTS

The discharge is made to an unnamed ditch which drains to an arroyo, neither of which support aquatic life or secondary contact recreation. However, as a part of State certification under section 401 of the Clean Water Act, NMED has required implementation of the recently adopted acute life designation in this permit. Therefore, numeric water quality criteria for livestock watering, wildlife habitat, irrigation, human health, and acute aquatic life were examined relative to this discharge.

A spreadsheet, which was used to analyze the reasonable potential for the discharge to exceed water quality criteria, is shown below in Appendix A.

b. PERMIT ACTION

(1) WATER QUALITY-BASED LIMITS

The comparison of effluent data with water quality criteria in Appendix A shows that the discharge has the potential to exceed State Water Quality Standards for Selenium, Vanadium, and Gross Alpha. New water quality-based limits for Vanadium are included in the proposed permit. The existing water quality-based limits for Gross Alpha and Cadmium are consistent with the criteria and is not proposed to be changed with this re-issuance. The existing water quality based limits for Selenium are more stringent than required under New Mexico’s recently adopted water quality criteria. Therefore, the limits for Selenium are proposed to be increased in the reissued permit.

(2) SCHEDULE OF COMPLIANCE

Part I.B of the draft permit establishes a schedule of compliance and reporting requirements leading to the attainment no later than three (3) years from the effective date of the permit of state water quality standards-based effluent limitations established for Selenium at Outfall 001. The existing limit for Selenium will be effective until the end of the compliance schedule.

c. MONITORING FREQUENCIES FOR LIMITED PARAMETERS

Regulations require permits to establish monitoring requirements to yield data representative of the monitored activity [40CFR122.48(b)] and to assure compliance with permit limitations [40CFR122.44(i)(1)]. The monitoring frequencies required by the expired permit are not proposed to be changed. All parameters limited at Outfall 001 are monitored at a minimum frequency of once per week, when discharging.

5. AQUATIC TOXICITY TESTING

a. GENERAL COMMENTS

The State has established narrative criteria which, in part, state that

> ''Surface waters of the State shall be free of toxic substances attributable to discharges in amounts, concentrations or combinations which affect the propagation of fish or which are toxic to fish or other aquatic organisms; ...'' (NM Standards 1105.F)

The Implementation Guidance for NM Standards state that

> ''Biomonitoring requirements will be applied to all major dischargers and those minor dischargers with known or potential problems to cause or contribute to exceedances of applicable [NM Standards] numeric or narrative water quality criteria in waters with existing or designated fishery uses'' (Section VI. Narrative Toxics Implementation)
> ''If it is determined that a facility is to receive chronic biomonitoring requirements at a critical dilution of 5% or less, then an acute-to-chronic ratio of 10:1 may be used to allow acute biomonitoring in lieu of chronic'' (Section VI.C).

b. PERMIT ACTION

The receiving stream is designated for an aquatic life use; however, the discharge is made to a typically dry ditch which is approximately 17 miles upstream of Rio San Jose. Give that the discharge would need to travel a fair distance before reaching a perennial water, whole effluent toxicity testing does not appear to be an appropriate requirement for this discharge and is not proposed to be required. In addition, the permittee has previously conducted whole effluent toxicity testing. That previous monitoring demonstrated no toxic effects at 100% effluent.

6. IMPAIRED WATER- 303(d) LIST

The receiving waters are not listed as impaired; therefore, no additional requirements are needed.

X. ENDANGERED SPECIES

EPA evaluated the potential to impact endangered species when the permit was last issued in 2000. At that time, it was determined that issuance of the permit would have no effect on any listed or proposed threatened or endangered species. There is no change in the baseline established by the previous permit; therefore, no further consultation is required at this time.

XI. VARIANCE REQUESTS

No variance requests have been received.

XII. ADMINISTRATIVE RECORD

The following section is a list of the fact sheet citations to applicable statutory or regulatory provisions and appropriate supporting references to the administrative record required by 40CFR124.9:

A. PERMIT(S)

NPDES Permit No. NM0020532 issued January 28, 2000 with an effective date of March 1, 2000 and an expiration date of February 29, 2005.

B. APPLICATION(S)

EPA Application Forms 1 and 2C dated August 19, 2004

C. CLEAN WATER ACT CITATIONS

Section 101
Section 101(a)(3)
Section 303
Section 304(e)
Section 308
Section 401(a)(1)
Section 401(a)(2)

D. 40CFR CITATIONS

STANDARD CITATIONS
122.44
122.44(a)
122.44(d)
122.44(d)(1)
122.44(i)(1)
122.44(i)(2)
122.44(l)(2)(ii)

122.45(c)(3)
122.46(a)
122.47
122.48
122.48(b)
124.5
124.53
131 amended at 57FR60848, 12/22/92

ADDITIONAL CITATIONS
Fact Sheet for NM0020532, dated August 26, 1999

E. STATE WATER QUALITY REFERENCES

STATE ADMINSTRATIVE CODE

The general and specific stream standards are provided in "New Mexico State Standards for Interstate and Intrastate Surface Water," (20NMAC6.1, effective 10/11/2002)

WATER QUALITY STANDARDS IMPLEMENTATION

Region 6 Implementation Guidance for State of New Mexico Standards for Interstate and Intrastate Stream, 5/5/95.

F. MISCELLANEOUS REFERENCES

Policy for the Development of Water Quality-Based Permit Limitations for Toxic Pollutants [49FR9016-9019, 3/9/84]

EPA Region 6 "Policy for Post Third Round NPDES Permitting" and "Post Third Round NPDES Permit Implementation Strategy," 10/1/92

Appendix A	CALCULATIONS OF NEW MEXICO WATER QUALITY-BASED EFFLUENT LIMITATIONS
NMAC 20.6.4.	2005
Calculations Specifications:	Excel "Revised as June 23, 2005"
Prepared By:	Isaac Chen 3-Jun-05

STEP 1: REFERENCE IMPLEMENTATION PROCEDURES

IMPLEMENTATION PROCEDURES

The State of New Mexico Standards for Interstate and Intrastate Surface Waters are implemented in this spread sheet by using procedures established in the "Implementation Guidance for State of New Mexico Standards for Interstate and Intrastatestreams", May 5, 1995.

FACILTY		DATA INPUT
Permittee		Rio Algom
NPDES Permit No.		NM0020532
Outfall No.(s)		001
Plant Effluent Flow (MGD)		1
Plant Effluent Flow (cfs)		1.55

RECEIVING STREAM		DATA INPUT
Receiving Stream Name		Unnamed Ditch
Basin Name		Rio Grande
Waterbody Segment Code No.		20.6.4.109
Is a publicly owned lake or reservoir (enter ""1"" if it's a lake, ""0"" if not)		0
Are acute aquatic life criteria considered (1= yes, 0= no)	1	
Are chronic aquatic life criteria considered (1= yes, 0=no)		0
Are domestic water supply criteria considered (1= yes, 0=no)		0
Are irrigation water supply criteria considered (1= yes, 0=no)		1
Livestock watering and wildlife habitat criteria applied to all streams		
Receiving Stream TSS (mg/l)		20
Receiving Stream Hardness (mg/l as CaCOs) RANGE: 0 - 400	200	
Receiving Stream Critical Low Flow (4Q3) (cfs)		0
Receiving Stream Harmonic Mean Flow (cfs)		0
Avg. Water Temperature (C)		16.2
pH (Avg)		7.7
Fraction of stream allowed for mixing (F)		1
Fraction of Critical Low Flow		0

STEP 2: INPUT AMBIENT AND EFFLUENT DATA / CALCULATE IN-STREAM WASTE CONCENTRATIONS

DATA INPUT Input pollutant geometric mean concentration as micro-gram per liter (ug/l or ppb) unless other unit is specified for the parameter.
"Effluent value reported as ""< detection level"" (DL) but the DL is greater than MQL, the 1/2 DL is used."
"Effluent value reported as ""< detection level"" (DL) and the DL is smaller than MQL, ""0"" is used."
"If a firm value is reported, even less than MQL, the reported value is used."

The following formula is used to calculate the Instream Waste Concentration (Cd)

$$Cd = [(F*Qa*Ca) + (Qe*2.13*Ce)] / (F*Qa + Qe)$$

Where:

Cd = Instream Waste Concentration
F = Fraction of stream allowed for mixing (see NM Implementation Guidance)
Ce = Reported concentration in effluent
Ca = Ambient stream concentration upstream of discharge
Qe = Plant effluent flow
Qa = Critical low flow of stream at discharge point expressed as the 4Q3 or harmonic mean flow for human health criteria

The following formula convert metals reported in total form to dissolved form if criteria are in dissolved form

Kp = Kpo * (TSS**a) Kp = Linear partition coefficient; Kpo and a can be found in table below
C/Ct = 1/ (1 + Kp*TSS* 1.0E-6) TSS = Total suspended solids concentration found in receiving stream (or in effluent for intermittent stream)
Total Metal Criteria (Ct) = Cr / (C/Ct) C/Ct = Fraction of metal dissolved; and Cr = Dissolved criteria value

Stream Linear Partition Coefficient

Total Metals	Total Value	Kpo	alpha (a)	Kp	C/Ct	Dissolved Value in Stream
Arsenic	50	480000	-0.73	53887.66189	0.481289107	24.06445534
Chromium 10	3360000	-0.93	207196.0069	0.194404262		1.944042623
Copper	10	1040000	-0.74	113310.7574	0.306164767	3.061647671
Lead	20	2800000	-0.8	254878.9884	0.163999495	3.279989891
Nickel	20	490000	-0.57	88840.0885	0.360126535	7.202530701
Zinc	15	1250000	-0.7	153528.5033	0.245665836	3.684987547

The following formula is used to calculate hardness dependent criteria

			Dissolved WQC (ug/l)
Cadmium (D)	Acute	e(1.0166[ln(hardness)]-3.924)*CF	3.948908896
	Chronic	e(0.7409[ln(hardness)]-4.719)*CF	0.397997761
Chromium (D)	Acute	0.316 e(0.819[ln(hardness)]+3.7256	1005.166881
	Chronic	0.860 e(0.819[ln(hardness)]+0.6848)	130.7515599
Copper (D)	Acute	0.960 e(0.9422[ln(hardness)]-1.700)	25.82266587
	Chronic	0.960 e(0.8545[ln(hardness)]-1.702)	16.19318047
Lead (D)	Acute	e(1.273[ln(hardness)]-1.46)*CF	136.1417491
	Chronic	e(1.273[ln(hardness)]-4.705)*CF	5.305248512
Nickel (D)	Acute	0.998 e(0.846[ln(hardness)]+2.255)	841.6586173
	Chronic	0.997 e(0.846[ln(hardness)]+0.0584)	93.4822878
Zinc (D)	Acute	0.978 e(0.8473[ln(hardness)]+0.884)	210.822953
	Chronic	0.986 e(0.8473[ln(hardness)]+0.884)	212.5474761
Silver (D)	Acute	0.85 e(1.72[ln(hardness)]-6.59)	10.59716954

Instream Waste Concentration

POLLUTANTS	CAS No.	STORET	MQL	Ambient Conc. Ca (ug/l)	Effluent Conc. Ce (ug/l)	Acute Fishery 2.13*Ce	Domestic Supply Cd,dom (ug/l)	Chronic Fishery Cd (ug/l)	Human Health Cd,hh (ug/l)	Domestic Criteria ug/l	Irrigation Criteria ug/l	Livestock/ Wildlife Criteria ug/l	Acute Fishery Criteria ug/l	Chronic Fishery Criteria ug/l	Human Health Criteria ug/l

Aluminum, dis	.7429-90-5	01106	100	0	0	0	0	1E+100	5000	1E+100	750	87	1E+100	
Barium, dis.	7440-39-3	01005	100	0	0	0	0	2000	1E+100	1E+100	1E+100	1E+100	1E+100	
Boron, dis.	7440-42-8	01022	100	100	213	213	213	213	1E+100	750	5000	1E+100	1E+100	1E+100
Cobalt, dis.	7440-48-4	01037	50	10	21.3	21.3	21.3	21.3	1E+100	50	1000	1E+100	1E+100	1E+100
"Molybdenum, dis.	7439-98-7	01062	10	270	575.1	575.1	575.1	575.1	1E+100	1000	1E+100	1E+100	1E+100	1E+100
Uranium, dis.	7440-61-1	22706	0.1	1730	3684.9	3684.9	3684.9	3684.9	5000	1E+100	1E+100	1E+100	1E+100	1E+100
Vanadium, dis.	7440-62-2	01087	50	50	106.5	106.5	106.5	106.5	1E+100	100	100	1E+100	1E+100	1E+100
Ra-226 and Ra-228 (pCi/l)		11503		3.1	6.603	6.603	6.603	6.603	5	1E+100	30	1E+100	1E+100	1E+100
Strontium (pCi/l)		13501		1000	2130	2130	2130	2130	8	1E+100	1E+100	1E+100	1E+100	1E+100
Tritium (pCi/l)		04124		1000	2130	2130	2130	2130	20000	1E+100	20000	1E+100	1E+100	1E+100
Gross Appha (pCi/l)		80029		1110	2364.3	2364.3	2364.3	2364.3	15	1E+100	15	1E+100	1E+100	1E+100
Asbestos (fibers/l)				0	0	0	0	0	7000000	1E+100	1E+100	1E+100	1E+100	1E+100
T. Residual Chlorine	7782-50-5	50060	100	0	0	0	0	0	1E+100	1E+100	11	19	11	1E+100
Nitrate as N (mg/l)		00620		0	0	0	0	0	10	1E+100	1E+100	1E+100	1E+100	1E+100
Nitrite + Nitrate (mg/l)		00630		0	0	0	0	0	1E+100	1E+100	132	1E+100	1E+100	1E+100
Antimony, dis.	7440-36-0	01097	60	0	0	0	0	0	5.6	1E+100	1E+100	1E+100	1E+100	640
Arsenic, dis.	7440-38-2	01000	10	1	2.13	2.13	2.13	2.13	2.3	100	200	340	150	9
Beryllium, dis.	7440-41-7	01012	5	0	0	0	0	0	4	1E+100	1E+100	1E+100	1E+100	1E+100
Cadmium, dis.	7440-43-9	01025	1	0	0	0	0	0	5	10	50	3.95	0.398	1E+100
Chromium, dis.	18540-29-9	01034	10	10	21.3	21.3	21.3	21.3	100	100	1000	1005.2	130.8	1E+100
Copper, dis.	7440-50-8	01042	10	0	0	0	0	0	1300	200	500	25.8	16.2	1E+100
Lead, dis.	7439-92-1	01049	5	20	42.6	42.6	42.6	42.6	50	5000	100	136.1	5.3	1E+100
Mercury, dis.	7439-97-6	71890	0.2	0	0	0	0	0	1E+100	1E+100	1E+100	1.4	0.77	1E+100
Mercury, total	7439-97-6	71900	0.2	0	0	0	0	0	2	1E+100	0.77	1E+100	1E+100	1E+100
Nickel, dis.	7440-02-0	01065	40	20	42.6	42.6	42.6	42.6	100	1E+100	1E+100	841.7	93.5	4600
Selenium, dis.	7782-49-2	01145	5	20	42.6	42.6	42.6	42.6	50	130	50	1E+100	1E+100	4200
Selenium, dis (SO4 >500 mg/l)"		01145	5	282	600.66	600.66	600.66	600.66	50	250	50	1E+100	1E+100	4200
Selenium, total rec.	7782-49-2	01147	5	282	600.66	600.66	600.66	600.66	1E+100	1E+100	5	20	5	1E+100
Silver, dis.	7440-22-4	01077	2	0	0	0	0	0	1E+100	1E+100	1E+100	10.6	1E+100	1E+100
Thalllium, dis.	7440-28-0	01059	10	0	0	0	0	0	1.7	1E+100	1E+100	1E+100	1E+100	6.3
"Zinc, Dis."	7440-66-6	01080	20	15	31.95	31.95	31.95	31.95	7400	2000	25000	210.8	212.5	26000
Cyanide, di.	57-12-5	00720	10	0	0	0	0	0	200	1E+100	1E+100	1E+100	1E+100	1E+100
Cyanide, wk acid dis	57-12-5	00718	10	0	0	0	0	0	700	1E+100	5.2	22	5.2	220000
2,3,7,8-TCDD	1764-01-6	34675	0.00001	0	0	0	0	0	0.00000005	1 E+100	1E+100	1E+100	1E+100	0.000000051
Acrolein	107-02-8	34210	50	0	0	0	0	0	190	1E+100	1E+100	1E+100	1E+100	290
Acrylonitrile	107-13-0	34215	50	0	0	0	0	0	0.51	1E+100	1E+100	1E+100	1E+100	2.5
Benzene	71-43-2	34030	10	0	0	0	0	0	22	1E+100	1E+100	1E+100	1E+100	510
Bromoform	75-25-2	32104	10	0	0	0	0	0	43	1E+100	1E+100	1E+100	1E+100	1400
Carbon Tetrachloride	56-23-5	32102	10	0	0	0	0	0	2.3	1E+100	1E+100	1E+100	1E+100	16
Chlorobenzene	108-90-7	34301	10	0	0	0	0	0	680	1E+100	1E+100	1E+100	1E+100	21000
Clorodibromomethane	124-48-1	32105	10	0	0	0	0	0	4	1E+100	1E+100	1E+100	1E+100	130
Chloroform	67-66-3	32106	50	0	0	0	0	0	57	1E+100	1E+100	1E+100	1E+100	4700
Dichlorobromomethane	75-27-4	32101	10	0	0	0	0	0	5.5	1E+100	1E+100	1E+100	1E+100	170
1,2-Dichloroethane	107-06-2	34531	10	0	0	0	0	0	3.8	1E+100	1E+100	1E+100	1E+100	370
1,1-Dichloroethylene	75-35-4	34501	10	0	0	0	0	0	0.57	1E+100	1E+100	1E+100	1E+100	32
1,2-Dichloropropane	78-87-5	34541	10	0	0	0	0	0	5	1E+100	1E+100	1E+100	1E+100	150
1,3-Dichloropropylene	542-75-6	34561	10	0	0	0	0	0	10	1E+100	1E+100	1E+100	1E+100	1700
Ethylbenzene	100-41-4	34371	10	0	0	0	0	0	3100	1E+100	1E+100	1E+100	1E+100	29000
Methyl Bromide	74-83-9	34413	50	0	0	0	0	0	47	1E+100	1E+100	1E+100	1E+100	1500

Methylene Chloride	75-09-2	34423	20		0	0	0	0	0	46	1E+100	1E+100	1E+100	1E+100	5900
1,1,2,2-Tetrachloroethane	79-34-5	34516	10		0	0	0	0	0	1.7	1E+100	1E+100	1E+100	1E+100	40
Tetrachloroethylene	127-18-4	34475	10		0	0	0	0	0	6.9	1E+100	1E+100	1E+100	1E+100	33
Tolune	108-88-3	34010	10		0	0	0	0	0	6800	1E+100	1E+100	1E+100	1E+100	200000
1,2--trans-Dichloroethylene	156-60-5	34546	10	0	0	0	0	0	700	1E+100	1E+100	1E+100	1E+100	140000	
1,1,2-Trichloroethane	79-00-5	34511	10		0	0	0	0	0	5.9	1E+100	1E+100	1E+100	1E+100	160
Trichloroethylene	79-01-6	39180	10		0	0	0	0	0	25	1E+100	1E+100	1E+100	1E+100	300
Vinyl Chloride	75-01-4	39175	10		0	0	0	0	0	20	1E+100	1E+100	1E+100	1E+100	5300
2-Chlorophenol	95-57-8	34586	10		0	0	0	0	0	81	1E+100	1E+100	1E+100	1E+100	150
2,4-Dichlorophenol	120-83-2	34601	10		0	0	0	0	0	77	1E+100	1E+100	1E+100	1E+100	290
2,4-Dimethylphenol	105-67-9	34606	10		0	0	0	0	0	380	1E+100	1E+100	1E+100	1E+100	850
4,6-Dinitro-o-Cresol	534-52-1	34657	50		0	0	0	0	0	13	1E+100	1E+100	1E+100	1E+100	280
2,4-Dinitrophenol	51-28-5	34616	50		0	0	0	0	0	69	1E+100	1E+100	1E+100	1E+100	5300
Pentachlorophenol	87-86-5	39032	50		0	0	0	0	0	2.7	1E+100	1E+100	19	15	30
Phenol	108-95-2	34694	10		0	0	0	0	0	21000	1E+100	1E+100	1E+100	1E+100	1700000
2,4,6-Trichlorophenol	88-06-2	34621	10		0	0	0	0	0	14	1E+100	1E+100	1E+100	1E+100	24
Acenaphthene	83-32-9	34205	10		0	0	0	0	0	670	1E+100	1E+100	1E+100	1E+100	990
Anthracene	120-12-7	34220	10		0	0	0	0	0	8300	1E+100	1E+100	1E+100	1E+100	40000
Benzidine	92-87-5	39120	50		0	0	0	0	0	0.00086	1E+100	1E+100	1E+100	1E+100	0.002
Benzo(a)anthracene	56-55-3	34526	10		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
Benzo(a)pyrene	50-32-8	34247	10		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
3,4-Benzofluoranthene	205-99-2	34230	10		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
Benzo(k)fluoranthene	207-08-9	34242	10		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
Bis(2-chloroethyl)Ether	111-44-4	34273	10		0	0	0	0	0	0.3	1E+100	1E+100	1E+100	1E+100	5.3
Bis(2-chloroisopropyl)Ether	108-60-1	34283	10		0	0	0	0	0	1400	1E+100	1E+100	1E+100	1E+100	65000
Bis(2-ethylhexyl)Phthalate	117-81-7	39100	10		0	0	0	0	0	12	1E+100	1E+100	1E+100	1E+100	22
Butyl Benzyl Phthalate	85-68-7	34292	10		0	0	0	0	0	1500	1E+100	1E+100	1E+100	1E+100	1900
2-Chloronapthalene	91-58-7	34581	10		0	0	0	0	0	1000	1E+100	1E+100	1E+100	1E+100	1600
Chrysene	218-01-9	34320	10		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
Dibenzo(a,h)anthracene	53-70-3	34556	20		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
1,2-Dichlorobenzene	95-50-1	34536	10		0	0	0	0	0	2700	1E+100	1E+100	1E+100	1E+100	17000
1,3-Dichlorobenzene	541-73-1	34566	10		0	0	0	0	0	320	1E+100	1E+100	1E+100	1E+100	960
1,4-Dichlorobenzene	106-46-7	34571	10		0	0	0	0	0	400	1E+100	1E+100	1E+100	1E+100	2600
3,3'-Dichlorobenzidine	91-94-1	34631	50		0	0	0	0	0	0.21	1E+100	1E+100	1E+100	1E+100	0.28
Diethyl Phthalate	84-66-2	34336	10		0	0	0	0	0	17000	1E+100	1E+100	1E+100	1E+100	44000
Dimethyl Phthalate	131-11-3	34341	10		0	0	0	0	0	270000	1E+100	1E+100	1E+100	1E+100	1100000
Di-n-Butyl Phthalate	84-74-2	39110	10		0	0	0	0	0	2000	1E+100	1E+100	1E+100	1E+100	4500
2,4-Dinitrotoluene	121-14-2	34611	10		0	0	0	0	0	1.1	1E+100	1E+100	1E+100	1E+100	34
1,2-Diphenylhydrazine	122-66-7	34346	20		0	0	0	0	0	0.36	1E+100	1E+100	1E+100	1E+100	2
Fluoranthene	206-44-0	34376	10		0	0	0	0	0	130	1E+100	1E+100	1E+100	1E+100	140
Fluorene	86-73-7	34381	10		0	0	0	0	0	1100	1E+100	1E+100	1E+100	1E+100	5300
Hexachlorobenzene	118-74-1	39700	10		0	0	0	0	0	0.0028	1E+100	1E+100	1E+100	1E+100	0.0029
Hexachlorobutadiene	87-68-3	34391	10		0	0	0	0	0	4.4	1E+100	1E+100	1E+100	1E+100	180
Hexachlorocyclopentadiene	77-47-4	34386	10		0	0	0	0	0	240	1E+100	1E+100	1E+100	1E+100	17000
Hexachloroethane	67-72-1	34396	20		0	0	0	0	0	14	1E+100	1E+100	1E+100	1E+100	33
Indeno(1,2,3-cd)Pyrene	193-39-5	34403	20		0	0	0	0	0	0.038	1E+100	1E+100	1E+100	1E+100	0.18
Isophorone	78-59-1	34408	10		0	0	0	0	0	350	1E+100	1E+100	1E+100	1E+100	9600
Nitrobenzene	98-95-3	34447	10		0	0	0	0	0	17	1E+100	1E+100	1E+100	1E+100	690
n-Nitrosodimethylamine	62-75-9	34438	50		0	0	0	0	0	0.0069	1E+100	1E+100	1E+100	1E+100	30

n-Nitrosodi-n-Propylamine	621-64-7	34428	20	0	0	0	0	0	0.05	1E+100	1E+100	1E+100	1E+100	5.1
n-Nitrosodiphenylamine	86-30-6	34433	20	0	0	0	0	0	33	1E+100	1E+100	1E+100	1E+100	60
Pyrene	129-00-0	34469	10	0	0	0	0	0	830	1E+100	1E+100	1E+100	1E+100	4000
1,2,4-Trichlorobenzene	120-82-1	34551	10	0	0	0	0	0	260	1E+100	1E+100	1E+100	1E+100	940
Aldrin	309-00-2	39330	0.05	0	0	0	0	0	0.00049	1E+100	1E+100	3	1E+100	0.0005
Alpha-BHC	319-84-6	39337	0.05	0	0	0	0	0	0.026	1E+100	1E+100	1E+100	1E+100	0.049
Beta-BHC	319-85-7	39338	0.05	0	0	0	0	0	0.091	1E+100	1E+100	1E+100	1E+100	0.17
Gamma-BHC	58-89-9	39340	0.05	0	0	0	0	0	0.19	1E+100	1E+100	0.95	1E+100	0.63
Chlordane	57-74-9	39350	0.2	0	0	0	0	0	0.008	1E+100	1E+100	2.4	0.0043	0.0081
4,4'-DDT and deriv.	50-29-3	39300	0.1	0	0	0	0	0	0.0022	1E+100	0.001	1.1	0.001	0.0022
Dieldrin	60-57-1	39380	0.1	0	0	0	0	0	0.00052	1E+100	1E+100	0.24	0.056	0.00054
Alpha-Endosulfan	959-98-8	34361	0.1	0	0	0	0	0	62	1E+100	1E+100	0.22	0.056	89
Beta-Endosulfan	33213-65-9	34356	0.1	0	0	0	0	0	62	1E+100	1E+100	0.22	0.056	89
Endosulfan sulfate	1031-7-8	34351	0.1	0	0	0	0	0	62	1E+100	1E+100	1E+100	1E+100	89
Endrin	72-20-8	39390	0.1	0	0	0	0	0	0.76	1E+100	1E+100	0.086	0.036	0.81
Endrin Aldehyde	7421-93-4	34366	0.1	0	0	0	0	0	0.29	1E+100	1E+100	1E+100	1E+100	0.3
Heptachlor	76-44-8	39410	0.05	0	0	0	0	0	0.00079	1E+100	1E+100	0.52	0.0038	0.00079
Heptachlor Epoixde	1024-57-3	39420	0.05	0	0	0	0	0	0.00039	1E+100	1E+100	0.52	0.0038	0.00039
PCBs	1336-36-3	39516	1	0	0	0	0	0	0.00064	1E+100	0.014	1E+100	0.014	0.00064
Toxaphene	8001-35-2	39400	5	0	0	0	0	0	0.0028	1E+100	1E+100	0.73	0.0002	0.0028

Note: SCORET CODE for reference only. Codes for total form are used except for parameters which have criteria in both total and dissolved forms.

STEP 3: SCAN POTENTIAL INSTREAM WASTE CONCENTRATIONS AGAINST WATER QUALITY CRITERIA AND ESTABLISH EFFLUENT LIMITATIONS FOR ALL APPLICABLE PARAMETERS

No limits are established if the receiving stream is not designated for the particular uses.
No limits are established if the potential instream waste concentrations are less than the chronic water quality criteria.
The most applicable stringent criteria are used to establish effluent limitations for a given parameter.
Water quality criteria apply at the end-of-pipe for acute aquatic life criteria and discharges to public lakes.
"If background concentration exceeds the water quality criteria, water quality criteria apply. And ""Need TMDL"" shown to the next column of Avg. Mass"
Monthly avg concentration = daily max. / 1.5.

APPLICABLE WATER QUALITY-BASED LIMITS

The following formular is used to calculate the allowable daily maximum effluent cincentration

Daily Max. Conc. = Cs + (Cs - Ca)(F*Qa/Qe)
Monthly Avg. Conc. = Daily Max. Conc. / 1.5
Where:
Cs = Applicable water quality standard
Ca = Ambient stream concentration
F = Fraction of stream allowed for mixing (1.0 is assigned to domestic water supply and human health uses)
Qe = Plant effluent flow
Qa = Criteria Low flow (4Q3) or Harmonic Mean flow for Human Health Criteria

POLLUTANTS	CAS No.	STORET	Domestic Limits	Irrigation Limits	Lvstock or Wildlife Limits	Acute Fish Limits	Chronic Fish Limits	Human Health Limits	Daily Max. ug/l	Monthly Avg. ug/l	Daily Max. lb/day	Monthly Avg. lb/day

Alum inum, dissolved	7429-90-5	01106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Barium, dissolved	7440-39-3	01005	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Boron, dissolved	7440-42-8	01022	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cobalt, dissolved	7440-48-4	01037	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Molybdenum, dissolved	7439-98-7	01062	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Uranium, dissolved	7440-61-1	22706	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vanadium, dissolved	7440-62-2	01087	N/A	100	100	N/A	N/A	N/A	100	66.67	1.29	0.86
Ra-226 and Ra-228 (pCi/l)		11503	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Strontium (pCi/l)		13501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tritium (pCi/l)		04124	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gross Appha (pCi/l)		80029	N/A	N/A	15	N/A	N/A	N/A	15	10	N/A	N/A
Asbestos (fibers/l)			N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total Residual Chlorine	7782-50-5	50060	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrate as N (mg/l)		00620	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrite + Nitrate (mg/l)		00630	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Antimony, dissolved (P)	7440-36-0	01097	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arsenic, dissolved (P)	7440-38-2	01000	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beryllium, dissolved	7440-41-7	01012	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cadmium, dissolved	440-43-9	01025	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chromium, dissolved	18540-29-9	01034	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Copper, dissolved	7440-50-8	01042	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lead, dissolved	7439-92-1	01049	N/A	N/A	N/A	N/A	5.3	N/A	32.3	21.6	0.42	0.28
Mercury, dissolved	7439-97-6	71890	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mercury, total	7439-97-6	71900	N/A	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nickel, dissolved (P)	7440-02-0	01065	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, dissolved (P)	7782-49-2	01145	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Selenium, dis (SO4 >500 mg/l		01145	N/A	250	50	N/A	N/A	N/A	50	33.3	0.65	0.43
Selenium, total recoverable	7782-49-2	01147	N/A	N/A	5	20	5	N/A	5	3.33	0.05	0.043
Silver, dissolved	7440-22-4	01077	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Thalllium, dissolved (P)	7440-28-0	01059	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Zinc, Dis.	7440-66-6	01080	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide, dissolved	57-12-5	00720	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Cyanide, weak acid dis.	57-12-5	00718	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,3,7,8-TCDD	1764-01-6	34675	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrolein	107-02-8	34210	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acrylonitrile	107-13-0	34215	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzene	71-43-2	34030	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bromoform	75-25-2	32104	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Carbon Tetrachloride	56-23-5	32102	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlorobenzene	108-90-7	34301	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Clorodibromomethane	124-48-1	32105	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chloroform	67-66-3	32106	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dichlorobromomethane	75-27-4	32101	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloroethane	07-06-2	34531	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1-Dichloroethylene	75-35-4	34501	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichloropropane	78-87-5	34541	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichloropropylene	542-75-6	34561	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ethylbenzene	100-41-4	34371	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Methyl Bromide	74-83-9	34413	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Methylene Chloride	75-09-2	34423	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2,2-Tetrachloroethane	79-34-5	34516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tetrachloroethylene	127-18-4	34475	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tolune	108-88-3	34010	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2--trans-Dichloroethylene	156-60-5	34546	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,1,2-Trichloroethane	79-00-5	34511	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Trichloroethylene	79-01-6	39180	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Vinyl Chloride	75-01-4	39175	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chlorophenol	95-57-8	34586	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dichlorophenol	120-83-2	34601	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dimethylphenol	105-67-9	34606	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,6-Dinitro-o-Cresol	534-52-1	34657	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrophenol"	51-28-5	34616	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pentachlorophenol	87-86-5	39032	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Phenol	108-95-2	34694	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4,6-Trichlorophenol	88-06-2	34621	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Acenaphthene	83-32-9	34205	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Anthracene	120-12-7	34220	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzidine	92-87-5	39120	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)anthracene	56-55-3	34526	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(a)pyrene	50-32-8	34247	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,4-Benzofluoranthene	205-99-2	34230	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Benzo(k)fluoranthene	207-08-9	34242	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-chloroethyl)Ether	111-44-4	34273	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-chloroisopropyl)Ether	108-60-1	34283	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bis(2-ethylhexyl)Phthalate	117-81-7	39100	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Butyl Benzyl Phthalate	85-68-7	34292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2-Chloronapthalene	91-58-7	34581	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chrysene	218-01-9	34320	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dibenzo(a,h)anthracene	53-70-3	34556	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Dichlorobenzene	95-50-1	34536	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,3-Dichlorobenzene	541-73-1	34566	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,4-Dichlorobenzene	106-46-7	34571	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3,3'-Dichlorobenzidine	91-94-1	34631	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Diethyl Phthalate	84-66-2	34336	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dimethyl Phthalate	131-11-3	34341	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Di-n-Butyl Phthalate	84-74-2	39110	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2,4-Dinitrotoluene	121-14-2	34611	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2-Diphenylhydrazine	122-66-7	34346	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluoranthene	206-44-0	34376	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Fluorene	86-73-7	34381	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobenzene	118-74-1	39700	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorobutadiene	87-68-3	34391	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachlorocyclopentadiene	77-47-4	34386	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hexachloroethane	67-72-1	34396	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indeno(1,2,3-cd)Pyrene	193-39-5	34403	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Isophorone	78-59-1	34408	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nitrobenzene	98-95-3	34447	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Nitrosodimethylamine	62-75-9	34438	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

n-Nitrosodi-n-Propylamine	621-64-7	34428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
n-Nitrosodiphenylamine	86-30-6	34433	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Pyrene	129-00-0	34469	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1,2,4-Trichlorobenzene	120-82-1	34551	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Aldrin	309-00-2	39330	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alpha-BHC	319-84-6	39337	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beta-BHC	319-85-7	39338	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gamma-BHC	58-89-9	39340	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Chlordane	57-74-9	39350	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4,4'-DDT and derivatives	50-29-3	39300	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dieldrin	60-57-1	39380	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alpha-Endosulfan	959-98-8	34361	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Beta-Endosulfan	33213-65-9	34356	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endosulfan sulfate	1031-7-8	34351	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin	72-20-8	39390	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Endrin Aldehyde	7421-93-4	34366	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor	76-44-8	39410	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Heptachlor Epoixde	1024-57-3	39420	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
PCBs	1336-36-3	39516	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Toxaphene	8001-35-2	39400	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A